FRIEDMAN & BRUYA, INC. ENVIRONMENTAL CHEMISTS

Date of Report: March 21, 1997 Date Received: March 13, 1997

Project: Metro Self Monitor, PO #56543 Date Samples Extracted: March 18, 1997 Date Extracts Analyzed: March 19, 1997

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR CHROMIUM, COPPER, NICKEL, AND ZINC USING METHOD 6010

Samples Processed Using Method 3005A

Results Reported as mg/L (ppm)

Sample ID	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M56543	0.36	0.30	0.26	< 0.05
Method Blank	< 0.05	<0.05	<0.05	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: March 21, 1997 Date Received: March 13, 1997

Project: Metro Self Monitor, PO #56543

QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 76617 (Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.36	0.34	6	0-20
Copper	mg/L (ppm)	0.30	0.29	3	0-20
Nickel	mg/L (ppm)	0.26	0.27	4	0-20
Zinc	mg/L (ppm)	< 0.05	<0.05	nm	0-20

Laboratory Code: 76617 (Matrix Spike)

	Reporting	Spike	Sample	% I	Recovery	Acceptance	Relative Percent
Analyte:	Units	Level	Result	MS	MSD	Criteria	Difference
Chromium	mg/L (ppm)	5	0.36	94	94	80-120	0
Copper	mg/L (ppm)	5	0.30	96	95	80-120	1
Nickel	mg/L (ppm)	10	0.26	93	92	80-120	1
Zinc	mg/L (ppm)	5	< 0.05	93	91	80-120	2

Laboratory Code: Spike Blank

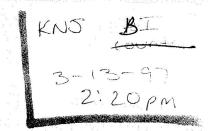
	Reporting	Spike	% R	ecovery	Acceptance	Relative e Percent
Analyte:	Units	Level	MS	MSD	Criteria	Difference
Chromium	mg/L (ppm)	5	95	94	80-120	1
Copper	mg/L (ppm)	5	94	95	80-120	1
Nickel	mg/L (ppm)	10	95	95	80-120	0
Zinc	mg/L (ppm)	5	94	95	80-120	1

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

FRIEDMAN & BRUYA, INC. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282

FORMS/COC

SAMPLE CHAIN OF CUSTODY



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#### FRIEDMAN & BRUYA, INC.

#### **ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D. Beth M. Albertson, M.S. Bradley T. Benson Kelley D. Wilt 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044

March 21, 1997

#### INVOICE # 97ACU0321-2 DUPLICATE COPY

Accounts Payable Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

RE: Project Metro Self Monitor, PO #56543: Results of testing requested by Gerry Thompson, Project Manager for material submitted on March 13, 1997.

1 water sample analyzed for Chromium, Copper, Nickel, and Zinc using Method 6010 @ \$65 per sample \$65.00

Amount Due \$65.00

FEDERAL TAX ID # (b) (6)

### FRIEDMAN & BRUYA, INC.

#### **ENVIRONMENTAL CHEMISTS**

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March 21, 1997

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on March 13, 1997 from your Metro Self Monitor, PO #56543 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Kurt Johnson Chemist

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Enclosures ACU0321R.DOC